Subj: **Docket # 99-325; Concerns re HD/IBOC; PVZ; 13 1845Z AUG 05**
Date: 8/13/05 11:46:58 AM Pacific Daylight Time
From:
To:

7245 Manasota Key Road
Englewood, FL, 34223-9306
13 August, 2005

Federal Communications Commission
445 12th Street, SW
Washington, D.C., 20554

RE: 99-325, Docket #, VIA ELECTRONIC AND GENERAL U.S. MAIL

Dear Commissioners;

This letter expresses concern about IBOC/HD's destructive - illegal under all other circumstances - interference. Promoters tout HD benefits yet ignore interference objections. They claim total industry support, questionable on its face. They dismiss the public, whose interest they and the FCC serve. Why so little public awareness of HD, much less demand? Why not encourage public demand? Friends in medicine, law, and business note HD's monopolistic bent. As do I, they ask why in an era of 'solutions', is interference part of the finished product? Why would the FCC approve the equivalent of jamming? HD backers elegantly dismiss harmful interference as 'unavoidable third adjacent noise blooms'. None with whom I spoke are so blase, as now they can't hear desired broadcasts due to HD stations. Giving HD the unearned benefit of nightime propagation will demolish AM. The future of AM and FM radio hinges upon your integrity.

Previous improvements were backward compatible. In Providence, RI, three adjacent channels, 4, 5, and 6 are well received. Were one to justify interference, pleading 'inevitable adjacent channel noiseblooms' the public would see this as cheating. Fines, loss of license might ensue. Do Ibiquity and 'partners' believe they can do as others can not?

Will the FCC knowingly render useless hundreds of millions of extant analog radios? Would FCC tell the public, buy Ibiquity licensed radios, or do without?. Is this what Ibiquity wants? According to reports, Robert J. Struble is unhappy that the transition to all digital won't occur as quickly as he wishes. Why should it occur at all? HD cheerleaders ask the FCC to truncate the comment period. Wouldn't they benefit from open discussion among all parties, public included?

FCC has long served the public and broadcasters of all stature by eliminating RF interference. It is thus unsettling that Ibiquity declares 'we could lose half the AM stations and not miss them'. Which ones? Those jammed by 'noise blooms'? Stations which proved vital to public safety during the 2004 hurricanes? Television stations relayed their audio via AM outlets big and small to those affected by the storms, when televisions went out with the lights. AM radio demonstrated that a lo-tech established system is the most efficient means to transmit vital information to great numbers of citizens. Will they now be denied such information due to 'inevitable noise blooms'? HD seems an ill conceived, "'rushed to market" relic from the 1990's, rendered obsolete by subsequent technological developments. If interference is of no consequence, why do HD promoters thwart discussion of it and ridicule of those who do?

FM stations have for decades broadcast SCA signals. TV stations broadcast closed captions. AM stereo has no ill effects. Ibiquity touts 'traffic and weather texting streams' as great innovations. If not damage to spectrum, have they at least considered the ironic safety hazard caused by drivers watching 'traffic texting' on HD radios, rather than the road?

This isn't about being opposed to IBOC/HD. Ibiquity, the NAB, and others seek your approval of a system which allows some increase in data throughput at great cost to spectrum, broadcasters, and the public. Unprecedented, as previous innovations all were judged by increased flow of information through reduced spectrum.

If Ibiquity wants to honestly claim it's system is 'in band and on channel', then perhaps it should bid on higher frequency spectrum and spare AM and FM its dubious benefits. Ibiquity's system is all over the band and destructive to multiple channels. How did this system gain this much ground without benefit of undue influence?

Respectfully submitted,

Paul V. Zecchino

No. of Copies rec'd 0
List A B C D E

Gregory J. Buchwald

August 23, 2005

Via Electronic Filing

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: MM Docket No. 99-325
Written Discussion of Gregory J. Buchwald's Reply to Comments
***Ex Parte* Notice**

Dear Ms. Dortch,

This cover letter is provided to your office in compliance with notification of late-filed Comments and Replies to the NPRM issued April 15, 2004; not yet scheduled for discussion.

In lieu of a formal appearance on my part before the Commission, I ask that my written statement, attached, be entered into the formal record with regard to Docket 99-325.

The purpose of this Statement is to formally enter into the record, certain technical arguments and discussions which other Commenters in this proceeding have asked to be expunged / ignored from the record. As a private citizen with concern over the adoption of the system proposed for use in the AM Broadcast Service, And as an invested party to a commercial AM broadcast facility, I wish to insure that my Comments and concerns are part of the formal record.

I thank you, in advance, for your attention to this matter.

Sincerely,

Gregory J Buchwald

815 455 6155

K9VI@aol.com

Before the
Federal Communications Commission
Washington, DC 20554

In the Matter of:	)	
	)	
Digital Audio Broadcasting Systems	)	MM Docket No. 99-325
And Their Impact on the Terrestrial	)	
Radio Broadcast Service	)	

Ex-Parte Written Statement of Gregory J. Buchwald

Introduction

I am filing this *Ex-Parte* statement and comment on behalf of myself, and as a stockholder in WRPQ-AM (Baraboo, WI). My technical qualification statement is now part of the public record; specifically, my Comments of Docket 99-325 filed within the Comment period on 7/18/2005 and my Reply Comments of Docket 99-325, filed in a timely fashion on 8/17/2005. It would please me to enter these statements in to the record in person; however, as a private individual, it is not possible for me to do so at this time. Therefore, I file this statement electronically, for consideration by the Commission.

To the point, the National Association of Broadcasters has requested, in their (as I believe) improperly filed and designated Reply Comments (that were inappropriately filed as a Reconsideration Document rather than Reply Comments), that the technical statements made by myself and others in this proceeding, should be dismissed without consideration. Specifically, the NAB requests that, "Thus, NAB urges the Commission to dismiss the individual and other commenters that here advocate reconsidering IBOC as the approach for digital radio and urge other spectrum options for digital radio." Furthermore, they state, "Similarly, the Commission should not address here the variety of individual and other commenters that have express theoretical or analytical engineering concerns regarding AM IBOC nighttime operation and other theoretical concerns. While important to be adequately addressed, those issues are not germane to the scope of the issues in the present comment cycle and therefore not properly re-argued here."

While I believe that this is the proper time to raise these issues as we are just now able to conduct full interference assessments of AM IBOC with the few stations that have now gone on-air, if the NAB is afforded this concession by the Commission, I must respectfully request that my filings be treated as late-filed, ex-parte comments and replies with respect to the FNPR of Docket 99-325, issued 4/15/2004, with a Comment period of 6/16/2004, and a Reply Comment period of 7/16/2004. **Since the issues raised during that FNPR Comment and Reply Comment period have not yet been assigned an agenda date, it is my**

understanding that it is proper to file Ex-Parte statements, both verbal and written, at this late date. Furthermore, since the build-out of IBOC-AM has just now reached the level at which serious analysis can be made, the qualitative and quantitative data presented by myself and others is of timely concern to the Commission.

It does not surprise me that Ibiquity, broadcast companies that are invested partners with Ibiquity, and certain individuals that work for these companies would ask the Commission for immediate action and adoption of NRSC-5, including nighttime AM-IBOC operation – it is simply business for them. But, I am surprised, and somewhat appalled, that an organization, such as the NAB, which is supposed to work towards improvements of service for their constituents, in addition to providing checks and balances for all sectors of their constituents, including minority, ethnic, rural, and other small market broadcasters, would endorse a system that would destroy the viability of these stations. These classes of stations are the most susceptible to interference from AM-IBOC, yet the NAB would rather the Commission NOT consider a new band for "AM digital" operation, thus protecting only the interests of a few high power AM facilities (even this is a point of contention, technically) and the FM broadcasters. Nor do they want an unbiased study of the interference issues to take place; incredibly, they argue against it.

I would also like to add at this juncture that there are a large number of broadcast engineers that do not support the use of AM IBOC. A simply check of the broadcast engineering internet reflectors, blogs, and statements on file with the Commission support this. Many of these engineers are unable to Comment, either on behalf of their broadcast company or as private individuals, out of fear that they might loose their jobs for "going against the grain" of their respective employers. One such example of a statement actually filed by an engineer about personal knowledge of the AM-IBOCX system were the Comments of Mr. Scott Clifton, now part of the record. Mr. Clifton was the chief engineer of WGCI-AM at the time that the AM-IBOC system was tested. His comments, filed during the 2004 comment period, are one of few actually filed by an engineer with first hand experience with the AM-IBOC system, and one that was not an employee of a consortium member at the time of filing. He pointedly discusses the interference issues he witness with the AM-IBOC system when it was under test at the facility he was then responsible for.

In discussions with another broadcast engineer in the Chicago market about this topic, he indicated that he was precluded from filing Comments and replies. He made an email statement to me that I think sufficiently summarizes many engineer's thoughts about AM-IBOC interference and protection of existing service:

> *Well, at least when the FCC issues the report and order authorizing IBOC on AM and during day and nighttime, they should be kind enough to state at the bottom of the order, "We (the FCC commissioners) don't really care what happens to the AM broadcast band*

or the smaller broadcasters or the listeners. Then, at least, they would be honest and I would applaud them for it. . . . ."

I have to add that I, personally, am optimistic that the Commission will re-consider the problems now coming to light and protect the AM band from IBOC service. If not, I would be inclined to support his latter comment.

It is also noteworthy that, although qualitative and quantitative Comments were filed by myself and many others I this latest round of Docket 99-325, none of the proponents argued with technical responses. The NAB and Ibiquity replied that my input and others should be ignored from the record. Yet, with the magnitude of the problem exposed by all of the technical data provided to the Commission, NONE of the statements were answered in the Replies. It is puzzling to me that, if a proponent really believed that there was no problem and had on-air data to prove it, they would WANT to make it part of the record. Instead, the topic is ignored completely by the few IBOC supporters that filed Replies and the Commission is urged to simply reject our duly-submitted data as "not germane to these proceedings." This statement is utter nonsense. Such decisions should be made on the basis of technical and political merit; both being equally important.

Finally, It is suggested that it is simply too late to bring up these issues at this late date within the life of this Docket. While this Docket is now nearing 6 years of age, that alone suggests the difficulty in closing this proceeding. I suggest if the system were viable, a rapid course of adoption would have been followed, such as that enjoyed by the BTS television stereo sound selection process and the fully digital DTV standard adopted for use in the United States by the FCC. While one can argue that OFDM might have been a better solution over 8-VSB, in the latter decision, the choice of 8-VSB did not occupy any additional bandwidth over an analog NTSC signal. Furthermore, as the Commission knows, it is never too late to re-think a poor decision. It was done in 1954, the adoption of the NTSC color standard reversing the CBS non-compatible mechanical system of 1950. It was done again in 1980 with the reversal of the 1979 decision to adopt the Magnavox PMX AM stereo system (which was flawed in that it utilized a limiter to demodulate the stereo difference signal, thus making it highly susceptible to downward modulation and noise), replacing it with the marketplace decision of 1982 and finally the C-QUAM standard of 1993. There have been other similar reversals of decisions as well. While one can argue that the best system may not have been chosen in each of these cases, it indicates that the Commission can reverse itself for the better public good, based on technical arguments that come to light after a preceding system was initially sanctioned for use. In the case of IBOC, it can be argued that, since notification must be made to the FCC prior to the initialization of service, and since the IBOC-AM system is not allowed to operate after sundown, we are in an experimental period. This is when we learn if a system works, real world, or not; this is where the rubber meets the road. My contention is that the FM system, while weak in some areas, has minimally proved itself and is justified in use. The AM-IBOC system simply IS NOT.

Summary Statement

The Commission now has a difficult task at hand. I respect and appreciate the ability and chance to offer my advice and discussion on the matter of Docket 99-325. To summarize:

1) The Commission should not approve the use of the IBOC-AM system on the basis of Interference.
2) International Treaties prohibit the level of interference to be broadcast on AM channels as proposed and currently in use by a few AM broadcast stations.
3) The Commission should seriously consider the use of Channels 5 and 6 (76 – 88MHz) for deployment of digital services with the singular use of carrying programming by stations currently operating analog services in the AM band.
4) A substantial quantity of Comments filed to the Commission with regard to this docket indicate that the interference produced is excessive. Quantitative and qualitative data has been presented through many of the Comments filed during July, 2005.
5) Homeland security issues should preclude the use of the AM IBOC system as it currently exists. In addition, other warning systems such as EAS, severe weather, etc. will also be impacted if AM IBOC is deployed. This is particularly true in rural areas.
6) An open standard for the audio Codec should be mandated for use by the FM-IBOC system and any future system that might be contemplated for use in the AM band.
7) NONE of the proponents in favor of the deployment of IBOC-AM, including the system owner, Ibiquity, have filed quantitative, or even qualitative measurements supporting the performance of the system and the interference, or lack thereof, produced by the AM IBOC system.
8) Although I feel that the FM-IBOC system is not the best choice, it is adequate for use at this time, and should be finalized in law, including the use of multi-casting, with two caveats:
    a. The AM service should be afforded an equivalent quality of digital service; the only method I see possible is by assignment in a new band of service at 76 – 88MHz, and
    b. Grandfathered high powered FM stations (those that operate above the class maximum for their channel assignment and location), should be allowed to inject only that level of power in the digital OFDM carriers which reflects an equivalent power level for class maximum allocations – that to which co-first, and second adjacent channels have been assigned.

Concluding Statement

I hereby state that the Comments herein, other than those specifically represented as those of other parties or individuals, are my own. I am filing this Ex-Parte statement as a private individual and as a stock holder of WRPQ-AM that is concerned over the future of the AM band with respect to IBOC-generated interference. To set the record straight, I have not discussed these matters with any of the other parties listed in the NAB Reply Comments: Mr. Leonard Kahn, Mr. Tim Cutforth, Mr. George Frese, Mr. Scott Clifton, etc. My last contact with Mr. Kahn at least 5 years ago, with Mr. Cutforth nearly 10 years ago as a technical representative for a broadcast interest in the Denver area for which we both provided technical services, and with Mr. Clifton nearly 10 years ago as well. I have, to the best of my recollection, personally never met Mr. Frese. I have discussed this filing with broadcast engineers that are not a party to the latest round of Comments and Replies and with Mr. Edgar Reihl, who did file Reply Comments in this latest round. I have no financial interest in the adoption of the CAM-D system; no do I act as a proponent of it. I do feel that it should be fully tested as a spectrum-compatible version of a hybrid digital broadcasting system in the United States. I do feel there is technical merit in the system as I have been led to believe it operates. The above statement should dispel any thought or suggestion that I am filing these comments as part of a group only concerned over the adoption of the CAM-D system. My sole concern in filing the Comments, Replies, and this Ex-Parte statement are to insure the viability of the AM band in the future, for use by ALL licensed facilities without added interference or prejudice, in times of National emergency and severe weather, as well as during regular operations, without added interference or reduced coverage. With that caveat, I submit my Comments, Reply Comments, and this statement with the hope that the Commission will acknowledge the problems present with the proposed continued roll-out of AM-IBOC, and, I particular, nighttime operation of AM-IBOC.

Respectfully Submitted,

(signed)

Gregory J Buchwald
August 23, 2005
Via Electronic Filing

Before the
Federal Communications Commission
Washington, D.C. 20554

In the matter:	)
Digital Audio Broadcasting Systems	)MM DOCKET No. 99-325
NRSC-5 Proposed Standard for IBOC	)

Written appearance of Timothy C. Cutforth, P.E.

Since the NAB and ibiquity have requested that certain portions of my testimony concerning the interference effects of the NRSC-5 proposed standard be stricken, I wish to appear before the Commission and provide my testimony at the time of the hearing on the matter.

As the permitee of KJJL, Pine Bluffs, WY, and KJME, Fountain, CO, I have standing to appear before the Commission in this matter. However, due to the workload in my broadcast engineering consulting business, I do not believe that I will be able to attend at the time this issue comes before the Commission. Therefore, in lieu of a personal appearance before the commission, I wish to tender this written appearance to the Commissioners for their consideration at the time of the hearing in this matter.

NRSC-5 INTERFERENCE LEVELS WILL REDUCE SERVICE TO THE PUBLIC

I believe that the NRSC-5 proposed standard for IBOC digital broadcasting as presented to the FCC for approval will seriously limit my ability to serve the public. The severity of this problem was not evident until the recent rollout of actual operation of IBOC broadcasting as I have recently observed it near my home in Denver, CO. I observe that IBOC operation DRAMATICALLY INCREASES ACTUAL SECOND ADJACENT INTERFERENCE LEVELS above what actually existed under NRSC-2. I would estimate that when comparing analog broadcasting to iboc broadcasting by the same stations, the interference on second adjacent channels has increased by 40 dB or more. What was before an occasional pop or crackle on an otherwise quiet channel has become a loud continuous roar. Denver area AM stations operating on 560 kHz, 760 kHz, 850 kHz, 910 kHz, 1150 kHz, and 1340 kHz each demonstrated that analog operation in compliance with NRSC-2 allowed signals to be listened to on the second adjacent often to levels below the protected 0.5 mV/m contour. However when in the last year those same stations turned on IBOC digital, most second adjacent listening was totally obliterated even for some second adjacent stations well within their primary 0.5 mV/m contours including one station that encompasses the Denver market. Significant interference was received inside of the 2 mV/m contour on more than one station.

Despite considerable number of complaints of digital noise interference, no reductions in interference have occurred in the Denver market. The only "managing" of digital interference I am aware of was when the station on 1150 kHz turned off their iboc and the coverage of an adjacent station on 1170 kHz once again reached half way across the Denver market to their predicted 0.5mV/m primary contour.

INTEGRITY IN PRESENTING FACTS FOR CONSIDERATION

We were led by the proponents to believe even very recently that interference would be no real problem.

From Ibiquity's reply comments dated August 17, 2005 – "iBiquity has repeatedly informed the NRSC and the Commission that there will be instances of interference from IBOC, but those instances will be minimal and managable."

Either the words *minimal* and *manageable* have multiple meanings not evident in the dictionary or there has been an effort to mislead the public, the broadcasters, and the Commission. Certainly the folks at ibiquity have witnessed their own system in action and its effect on second adjacent channel listening by now. The interference levels I have observed can hardly be called minimal. I am aware of no attempt to manage the second adjacent interference in a real world installation although by now there surely must have been at least one. Has there been successful efforts in managing that very obvious interference? We are not even told of any such effort being tested.

SERVICE TO THE PUBLIC MUST BE THE FCC's MAIN GOAL

Those in favor of the NRSC-5 standard are determined that speed of adoption of the present form of digital broadcasting is an overarching concern that must trump all concerns of interference protection and/or protection of existing service relied on by the listening public. Apparently, the GOOD of achieving DIGITAL must be deemed to outweigh all existing rights of analog broadcasters and the rights and good of the listening public.

APPLYING THE NRSC MASK TO INTENTIONAL RADIATION IS AN UNCONSCIENABLE PRECEDENT THAT OPENS PANDORAS BOX

FCC section 73.44 regulates *incidental* interference caused by the modulation within the allowable modulation bandpass. The rule was never intended nor is it appropriate to regulate intentional modulation of subcarriers outside of that allowable modulation bandpass. Specifically the language of 73.44 makes it clear that in cases where actual interference is caused to reception the FCC can require suppression of products to levels below that specified in (a) or (b) of that section. The mere existence of the "NRSC MASK" cannot justify intentional modulation outside of the nominal audio bandpass, and especially if it causes actual interference to reception of broadcast or other services.

Using the NRSC mask and 73.44 to authorize intentional carriers and modulation on another channel violates the very purpose of the law...20 years of successful interference reduction trashed in one stroke of the pen.

PRESENT STA OPERATIONS DO NOT COMPLY WITH NRSC-2 and 73.44

The proposed NRSC-5 mask and specification are needed to codify the violation of the existing NRSC-2 mask standard which is promulgated in Section 73.44. The very manufacturers setting up iboc equipment are specifying that the spectrum analyzer should be set for average not peak detection as specified in NRSC-2. In addition they point out that your system is "really not out of compliance" with the STA if there are a few spikes above the mask within the bandwidth of interest. The new proposed NRSC-5 standard calls for several allowable spikes 20 dB above the (averaging detector) mask level. The present FCC rule upon which the iboc STA operation is based specify peak detection and NO SPIKES above the mask level over a ten minute observation period. Again the broadcaster and the FCC has been mislead into believing that the iboc STA operation complies fully with the present NRSC-2 emission mask when in fact it may miss the mark by 20 dB or more as actually installed and measured. Reduction of the digital subcarrier to levels that comply fully with the NRSC-2 mask exactly as specified in 73.44 would I believe result in a total failure of the digital transmission in most cases.

NOISE WILL REPLACE MUCH PROTECTED SERVICE NATIONWIDE

Even if the claims of iboc proponents are only the result of unwarranted optimism, wishful thinking, or blindness, vast quantities of protected service presently relied on by the public will be eliminated or dramatically reduced in quality if the NRSC-5 standard describes AM digital broadcasting in the US. There can be NO ARGUMENT that the signals described in the NRSC-5 proposal create thousands of times more interference to analog listening on first and second adjacent channels than standard A3E broadcasting even when incredibly high analog modulation densities and full 10 kHz audio bandwidth are used. Subjective testing with real listeners in a double blind study will surely show that the effect is even worse than the mathematical analysis suggests. The bottom line is that the NRSC-5 standard allows TOO MUCH INTERFERENCE.

THE FCC EXISTS TO MINIMIZE INTERFERENCE NOT INCREASE IT

The effect of adopting the NRSC-5 standard will be to insure that there is in fact no truly protected contour nationwide whether day or night. This would be a travesty and in contradiction of the FCC charter as found in the communications act as amended to date.

THE PROPOSED iboc IS NOT AN OPEN STANDARD

As pointed out by Microsoft and others, the present iboc digital broadcasting system and the attendant NRSC-5 standard is not an open standard allowing for innovation but a plan to restrict innovation by preventing undesirable competitors from introducing alternate innovative technologies, hardware solutions, data encoding, or compression schemes not approved by and licensed by the underlying patent holders.

IN SUMMARY NRSC-5 IS A POOR TRADE-OFF FOR THE PUBLIC

Adoption of NRSC-5 will disenfranchise great numbers of listeners who live or venture beyond the city grade contour of their favorite station. Innovation will be locked out permanently and prevented from rocking the patent licensing fee boat. If this system is adopted piecemeal as proposed, then the FCC will have disregarded their very reason for existence and done great damage to the public good in exchange for the opportunity to be praised for rising above old unnecessary standards of protecting service to the public just so the US can claim to be on the cutting edge of new technology. If protecting service to the public isn't a priority any longer, then the FCC can and should be abolished without it being considered a significant loss. I sincerely hope and pray the FCC takes seriously its statutory role in protecting service to the public and minimizing interference.

Respectfully submitted,
Timothy C. Cutforth
25 August 2005

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington D.C. 20554

In the matter of:	)	
	)	
National Radio Systems Committee's	)	DA 05-1661
"In-Band/On-Channel Digital Radio	)	MM Docket No. 99-325
Broadcasting Standard NRSC-5	)	

EX PARTE COMMENT

Edgar C. Reihl, P.E.

I hereby file the following brief ex parte comment in the above matter as a member of the American public and as an AM radio listener for more than 50 years. In this proceeding, the Commission requested comments on the National Radio Systems Committee ("NRSC") initial digital audio broadcasting ("DAB") standard entitled "In-Band/On-Channel ("IBOC") Digital Radio Broadcasting Standard NRSC-5" ("NRSC-5"). Although this standard deals with both standard AM and FM broadcast systems, my comments are directed toward the AM band implementation.

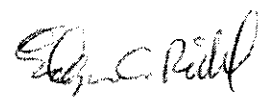
As of this writing, our nation is still coming to grips with the widespread destruction caused by Hurricane Katrina to the City of New Orleans and many other parts of the south. For more than a week, AM radio station WWL, the 50,000 Watt voice of New Orleans on 870 kHz has been continuously broadcasting news and information about the current situation and helping families communicate with one another. For tens of thousands of displaced and homeless people, these broadcasts from WWL received on battery powered radios have been the only source of news and information available to them and to their families. Many citizens of New Orleans have been evacuated to other cities from Texas to Alabama. With its powerful signal, WWL has been able to reach out to these desperate people scattered across hundreds and even thousands of miles to bring hope to them and help them cope with their plight. At night, station WWL is heard clearly as far away as Chicago and beyond. This should certainly serve to underscore the vital role that AM radio plays as a primary communications link in emergencies caused by severe weather or terrorist attacks, as noted by previous commenters in this proceeding. When power and telephone lines are down and cellular towers are knocked off the air, AM radio *gets through*.

If the Commission acts to authorize digital IBOC transmission on the AM band according to the NRSC-5 standard, the effectiveness of AM radio as a communications tool in times of emergency such as the current Hurricane Katrina disaster will be severely compromised or destroyed. The first and second channel interference caused by the digital IBOC sidebands can disrupt reception hundreds or even thousands of miles away at night time. For example, during previous night time IBOC test transmissions from station WOR on 710 kHz in New York, the writer personally observed the complete annihilation of station WGN on 720 kHz in Chicago at a distance of only 120 miles from the latter due to the digital noise sidebands of WOR. Long distance propagation is a reality on the AM band at night, and no standard will be able to change that fact.

Because of its vital role as a primary communications channel in times of national emergency, the Commission *must reject* the NRSC-5 standard as it applies to the AM band and decline to authorize its use for either daytime or nighttime operation. Worthy alternatives have been suggested to the Commission in this proceeding; notably the opening of a new band for digital radio in TV Channel 6.

Finally, the Hurricane Katrina disaster serves to further highlight the previously-filed comments of Mr. Robert Foxworth of Tampa, FL noting the importance of AM radio, in which he stated that "High-power clear frequency AM broadcasting, especially at night, is an in-place, low-tech, widely dispersed mechanism to allow instantaneous multicast messaging... to get information to a vast audience in the event of a disaster". *AM radio remains the best and most dependable source of emergency news and information.* Analog AM broadcasts can be received on simple battery powered receivers that can operate for many hours. Furthermore, the wide area coverage of many AM stations is extremely valuable. *The Commission should not dismantle this vital communications network by allowing the AM band to become polluted with noise caused by IBOC transmissions.*

Respectfully submitted,



Edgar C. Reihl, P.E.

September 5, 2005

Sandralyn Bailey

99-325

From: *Thomas Olejniczak [tom.ole@usa.com]*
Sent: Thursday, March 30, 2006 10:24 PM
To: KJMWEB
Subject: Comments to the Chairman

Thomas Olejniczak (tom.ole@usa.com) writes:

Dear Chairman Martin;

I understand that the decision to allow nightime IBOC to be implemented is nearly at hand. May I say that IBOC on the AM band at any time is a critical mistake!? The interference to the two adjacents to a station running IBOC is atrocious. I love the AM band and feel that it should be left alone. IBOC on FM only, please!

Thanks for your attention.

Sincerely, Tom.

Server protocol: HTTP/1.1
Remote host: 64.136.49.225
Remote IP address: 64.136.49.225

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99-325

Sandralyn Bailey

From: Jerry Smith [jerry@jerrysmith.net]
Sent: Thursday, July 13, 2006 7:38 AM
To: Jonathan Adelstein
Subject: PLease save broadcasting

I wrote my heart in a 99-325 comment.I heard nothing in reply.Please say no to the runaway digital train today.Send it back for a real review.Radio is already suffering from the trash on AM and FM and cannot tolerate more digital stations. Please, save our only source of info during emergencies and attacks....we dont need the loss of signals and out of band noise this false science creates...just ask your OET under oath....go to the Ibiq website and read their users contract...that alone should convince anyone of their own knowledge base.
Regards,
Warren G Smith 24 hours at 904 237 3020...just ask me....

I am the General Manager of KAVV (FM), Ch 249 at Benson, AZ. On or about November 8, 2006 KSZR (FM), Ch 248 licensed to Oro Valley, AZ began transmitting with IBOC, on our first adjacent channel. Due to the digital noise on our frequency, we have lost about ten miles of valuable coverage along Interstate 10, west of Benson.
KAVV is a public service oriented station which broadcasts frequent weather and traffic reports of interest to travelers. By contrast, KSZR is a jukebox.

Clearly the public interest is not served by allowing this massive interference. I propose two possible solutions: First, digital FM should be held in abeyance until a system can be perfected that doesn't interfere with adjacent stations. Alternatively, the interfering station should be required to compensate the victimized station for loss of coverage.

Filed 1/16/07
Paul Lotsof
Box 18899
Tucson, AZ 85731

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Commission's Rules to Permit	)	
Digital Broadcasting on	)	Docket No.: 99-325
AM Broadcast Stations and on	)	
FM Broadcast Stations	)	

COMMENTS OF JOHN PAVLICA, JR.

As an American consumer, as an electrical engineer, and as a licensed Amateur Radio operator, I respectfully submit my comments and opinions regarding the iBiquity In Band On Channel (IBOC) – "HD radio" broadcasting on the existing AM band and FM band, and digital broadcasting in general, now that we have actually heard "HD" radio transmissions over the air on the AM band.

As I've said before, analog AM radio broadcasting is a great service to the general public, and remains a faithful servant during times of emergencies and disasters. The 2005 hurricane season proved just how valuable a clear channel class AM station is to people in need (WWL). An old AM transistor radio provides many hours of use on a single battery, unlike the digital receivers of today that are still very power hungry (HD-IBOC and satellite radio). AM stations have a great gift (that is to some AM stations a curse) – and that is the fantastic long-range reception available to the public at night by analog AM radio. During disasters, very large areas are afforded

coverage by a single AM station, and AM radio stations need to continue to service the public without interference from IBOC adjacent channel digital hash, noisy traffic signals not meeting FCC Part 15 requirements, or possibly even BPL.

That being said, during daylight hours I have observed the audio from WEOL (930 KHz) being 'wiped-out' by IBOC "hash" from WWJ (950 KHz). I have observed WOWO (1190 KHz) being 'wiped-out' by digital hash from 1200KHz in Detroit. I have observed CHWO (740 KHz) Toronto obliterated by digital "hash" from WJR on 760KHz until their IBOC was shut-off, then, AM740 came in 'loud and clear'. This is daytime reception – one could only imagine how horrible the digital interference would be at night if several adjacent stations were in IBOC. IBOC test transmissions on 1530 KHz from Cincinnati at night did show how devastating just a one-minute blast of IBOC can be to first and second adjacents, and even unto itself. It is clear from my simple over-the-air observations, that the current IBOC HD system from iBiquity is unacceptable and unusable in its current form on the AM broadcast band in the United States. The good of the many, outweigh the good of the one, or the few; therefore, analog broadcasting should continue on the AM band without the horrible digital hash on the 2 adjacent channel sidebands above and below the carrier frequency.

What do we do about the current state on the AM broadcast band then? May I offer the commission the following suggestions:

1) Analog AM broadcasts are too important to be polluted with digital hash; therefore, I request that the FCC prohibit any further iBiquity IBOC broadcasts, in its current form, effective immediately. AM IBOC at night is totally out of the equation due to skywave interference.

2) Perhaps there is a way that the existing iBiquity IBOC HD transmitters can be reconfigured to transmit using spectrum-friendly C-Quam AM stereo, DRM, CAM-D, or reconfigured for a very small amount of digital data on the main carrier frequency only for emergency messaging with a much narrower bandwidth and level.

3) I highly suggest that the FCC mandate a receiver standard requiring any radio with IBOC-FM to include an AM receiver section meeting AMAX specifications (7.5KHz audio bandwidth, digital noiseblanker). Perhaps that standard could even mandate an option that anyone of the following be included: C-Quam stereo, Kahn CAM-D, or DRM reception if FM IBOC is included.

4) Encourage all FM IBOC stations to give (or to rent) an FM HD2 or HD3 subchannel to AM stations in the same market.

5) AM stations be given FM stereo translator preference (but only those stations under 10KW).

It is my opinion that the current iBiquity IBOC HD radio on the AM band is too wide, too noisy and unsuitable for use on the analog AM band. Testing in Michigan and in Florida using the Boston Acoustics Receptor Radio has indicated that the 'enhanced' HD on AM works only very close to the AM transmitter, and nowhere near the range of the analog broadcast during the day. There are way too many legacy analog AM receivers that need to continue to function without digital interference. That being said, AM receiver standards must be mandated to improve AM reception when an FM-IBOC receiver is present in the same device, as well as the commission enforcing manufacturers to limit RF noise generated on the AM broadcast band by offending devices (such as LED traffic signals, power companies, etc...).

In my opinion, based on current iBiquity AM-IBOC HD over the air broadcasts, IBOC HD radio is unsuitable for the AM broadcast band, and, other options as outlined above, should be utilized.

Once again, thank you for allowing me to voice my opinions and suggestions.

Respectfully submitted,

John Pavlica, Jr.